

# CONSERVATION AND THE OHIO ACADEMY OF SCIENCE— AN HISTORICAL REVIEW<sup>1</sup>

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When the Ohio State Academy of Science was organized on December 31, 1891, its objectives were "to encourage scientific research and to promote the diffusion of knowledge in the various departments of science." For many years the Academy operated as a unit, but gradually sections were established for the separate sciences in which a number of members were particularly interested. A section for conservation was not established until 1952. However, for more than half a century the Academy has shown an interest in conservation of natural resources and conservation education. Committees on conservation have been established at various times in the past to promote certain conservation measures and as an advisory body to the Academy when such problems were presented to the organization. When a special section for conservation was finally established, it became one of the most active groups in the Academy and has remained so to the present time. Historical highlights in the relationship between the Academy and conservation matters will be traced in this article throughout the 70 years The Ohio Academy of Science has been in existence.

The first mention of a specific nature in the official records of the Academy is the appointment of a committee of three "to try to induce the legislature to modify the game laws." President A. A. Wright appointed W. A. Kellerman, F. M. Webster, and A. L. Treadwell to serve on this committee. At the Seventh Annual Meeting, held in December, 1898, Professor Kellerman reported for the committee that the bill which he framed, and which was "thought to embody the ideas of the members of the Academy interested," was at first loaded down with amendments and defeated. Later the bill was brought up again and passed without any changes. This bill provided heavy fines for the illegal taking of game animals, and citizens of the state were required to take out permits in accordance with the provision of the new law.

At the meeting for 1899 the Academy created a committee "to prepare a directory of the streams, lakes, ponds, artificial reservoirs, swamps, and marshes of Ohio." E. B. Williamson, W. A. Kellerman, and Gerard Fowke were appointed for that purpose. This action had been stimulated by a paper which E. B. Williamson had presented to the Academy meeting on "A Scheme for a Catalogue of the Streams, Lakes, and Swamps of Ohio." Following this project there was a long gap before the Academy was again active in conservation matters. At the meeting for 1908 reports were given on "The Preservation and Development of the Natural Resources of Ohio." Professor J. A. Bownocker spoke from the standpoint of geology, Professor W. R. Lazenby spoke from the standpoint of forestry, and Professor Herbert Osborn explained the biological point of view. These three men constituted a committee on Conservation of Natural Resources. Two additional members, J. W. Smith and L. B. Walton, were added to the committee at this time. The committee presented to the Academy a set of resolutions to the effect that the Academy should actively support conservation measures. The formation of a State Forestry Commission or a State Forest Service was urged. The need for proper utilization of water resources was pointed out, and the committee recommended a scientific investigation of aquatic biological resources,

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preferably through the passage of a bill to establish a Biological Survey on which matter the committee had been working since 1905. It was recommended that a State Conservation Commission be created by the governor or the General Assembly. It was also recommended that the Academy continue the committee on conservation which should arrange a special session for the next meeting devoted to a discussion of conservation of natural resources in the state of Ohio.

At the meeting of 1912 it was announced that a natural history survey had been successfully organized with 12 cooperating institutions, and that The Ohio State University had requested an appropriation from the legislature to aid the work of the survey. Financial assistance had been promised by 12 colleges in the state. Dr. Herbert Osborn was elected to serve as Director of the Survey. He spoke to the Academy on "The Ohio Biological Survey."

At the next meeting of the Academy, Dr. Osborn gave "a gratifying report of the organization and beginning work of the Ohio Biological Survey." While the survey was not strictly a conservation matter, many of the publications which were later issued by the Ohio Biological Survey became of great value in promoting conservation activities in the state.

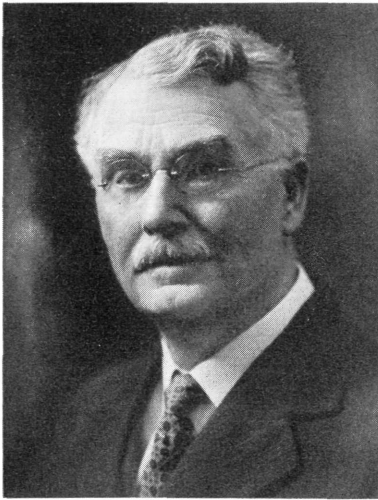


FIGURE 1. Dr. Herbert Osborn.  
Photograph made about 1936.



FIGURE 2. Dr. E. Lucy Braun.  
Photograph made in 1950.

At the 26th Annual Meeting, held at Columbus in 1917, Dr. Osborn gave a report on "The Preservation and Utilization of Wildlife in Ohio." In 1920, following a paper which he read on "The Preservation of Native Flora and Fauna," he was requested to give a report to the Section of Zoology on the work of the Ohio Department of Agriculture in providing preserves for wildlife. The Academy, realizing the importance of this work, appointed a committee to cooperate with the state authorities to develop a policy for future work of the Academy toward the preservation of native fauna and flora. Dr. Osborn was made chairman and other members were J. E. Carman, Bruce Fink, F. H. Herrick, M. M. Metcalf, C. G. Shatzer, and E. N. Transeau.

In 1921 the Committee on Preservation of Wildlife gave the first of a long series of annual reports. At this time the name of the committee was revised to be the Committee on State Parks and Conservation. Dr. Osborn reviewed advances in conservation in Ohio and neighboring states, and the committee drew up a

recommendation that all members of the Academy cooperate by listing suitable lands that might be acquired as state parks and reservations of special scientific interest. The following year Dr. Carman, a member of the Committee, reported to the Academy on "Some Proposed State Parks for Ohio." Dr. Osborn gave a progress report for the Committee, mentioning especially the cooperation of state officials in working toward the objective of the Academy for preservation of natural areas. Dr. E. Lucy Braun was commended for compiling a list of areas desirable for preservation. The Committee recommended the establishment of a State Commission on Parks which would consist of representatives from the state divisions concerned with natural resources and two representatives from The Ohio Academy of Science. The duties of this commission would be to advise and coordinate action between various agencies in the selection of lands desirable for preservation and to formulate regulations for their use, under the leadership of Herbert Osborn as chairman. The Committee reported each year the progress made by various state and federal agencies in the development of parks and reservations in Ohio. Recommendations were also made by this committee for future projects which were brought to the attention of the proper authorities. As an amendment to the constitution made in 1923, the duties of this Committee on State Parks and Conservation were specified: "To consider the various possibilities in the formation of state parks in areas of scenic, geological, or biological interest, and of the efficient methods for the preservation of the native fauna and flora and for the conservation of the natural resources of the state; it shall cooperate in all possible ways with other societies, institutions, and state officials in the promotion of these objectives."

At the meeting for 1924, Dr. Osborn, following his report of conservation activities in the state, announced the publication of the *Naturalists' Guide to the Americas*, published by the Ecological Society of America and edited by V. E. Shelford, in which Ohio natural areas were described by Dr. E. Lucy Braun. For many years this remained a standard reference to the natural areas of Ohio.

At the 35th meeting, held in 1925, Dr. Osborn presented a report on the current status of state forests and their utilization which had been prepared by Edmund Secrest, the State Forester. This synopsis was published in full in the Annual Report of the Academy. At the meeting of the following year, the organization of an Advisory Council on State Parks and Conservation for Ohio from the various branches of state government and from civic groups concerned with conservation matters was announced. One of the recommendations made by the Committee was to set aside certain sections of state forests and game refuges and other tracts of land under state control as "wildlife sanctuaries or preservations, with a view to the permanent preservation of the native association of plants and animals."

At this meeting a report was given on "Value of Scientific Work in the Ohio Division of Fish and Game" by E. L. Wickliff. At the following annual meeting, Dr. Osborn reported on a conference he held with Edmund Secrest, the State Forester, who welcomed the suggestion of "a special committee of advisors from the Academy to formulate regulations intended to preserve the biological status in the state forests." The president of the Academy was authorized to appoint such a committee, selecting Herbert Osborn, E. Lucy Braun, and Arthur Harper to work with the State Forester on this matter. At this meeting Lynds Jones gave a report on "The Automobile as a Factor in the Destruction of Wildlife."

At the 38th Meeting, held in 1928, Dr. Osborn called attention to a bill introduced in the House of Representatives (70th Congress) for the promotion of reforestation. The Academy endorsed the bill and the secretary was instructed to so advise Congressman John McSweeney. At the meeting for 1929 Dr. Osborn reported on legislation providing for a State Commission of Conservation and legislation providing for permanent bird refuges. A State Commission for Conservation was favored by the Academy since it would provide a permanent organiza-

tion to give continuity in matters of natural resources conservation. Legislation for this commission was in part stimulated by the activities of The Ohio Academy of Science. At the following meeting, the establishment of an Ohio Division of Conservation in the Department of Agriculture was announced. Specific mention was made of one of the units entitled "The Bureau of Scientific Research." At this meeting, Roscoe W. Franks reported on "Activities of the Ohio Division of Conservation," and E. L. Wickliff read a "Progress Report of the Hydrobiological Survey of Lake Erie."

At the following annual meeting the Committee on State Parks and Conservation supported the recommendation that the Save Outdoor Ohio Council, which had worked closely with the Academy in recent years, be continued. Reports were also given on the status of legislative bills concerned with conservation.

At the meeting of 1932 the Committee on State Parks and Conservation gave a very detailed report on conservation activities throughout the state and drew up a list of recommendations as a basis for possible legislation, including a list of suitable areas suggested for preservation as state parks. Attention was called to the establishment of a Water Conservation Board, headed by David C. Warner. The following year E. Lucy Braun and Edward S. Thomas, state representatives for Ohio on the Committee for the Preservation of Natural Conditions, sponsored by the Ecological Society of America, outlined plans of that society for the preservation of natural communities by the creation of nature sanctuaries. Several Ohio localities were suggested. At this meeting a special lecture was given by Hugh H. Bennett of the U. S. Soil Conservation Service entitled, "The Cause of Soil Erosion."

At the 44th Annual Meeting Roscoe Franks reported that through the efforts of the Academy and Dr. S. Prentiss Baldwin, birds of prey were being given better protection in Ohio. Legislation was passed to abolish payment of a bounty on hawks and owls. Beginning in 1934, the Committee on Parks and Conservation was headed by Edward S. Thomas. He made his first report at the meeting for 1935. His detailed annual reports are for the most part published in the Annual Reports of the Academy. At the meeting of 1935 Dr. Frederick H. Krecker suggested that the Conservation Committee establish communications with the higher officials of the state government so that the position of the Academy on matters of conservation would come to the attention of the Governor and his staff. At this meeting Mr. Franks offered a set of resolutions aimed to eliminate pest hunts in Ohio, for greater enforcement of laws protecting valuable birds of prey, and to provide a thorough study of predatory animals in Ohio. Dr. A. E. Waller spoke on the affiliation of the Academy with the Save Outdoor Ohio Council, and recommended support of its activities.

At the meeting for 1936 Dr. Floyd B. Chapman reported on "Wildlife Sanctuaries Sponsored by The Ohio Academy of Science in Southern Ohio," and Luther L. Baumgartner reported on "A Suggested Quail Management Program in Ohio." In the report of the Committee on State Parks and Conservation for 1937, Dr. Thomas and the Committee called attention to the establishment of a Cooperative Wildlife Research Station at Columbus which was established cooperatively by The Ohio State University, the Ohio Division of Conservation, and the U. S. Biological Survey, and to the establishment of a Fisheries Research Institute, established at the Franz Theodore Stone Laboratory at Put-in-Bay. This Institute was supported by The Ohio State University and the Ohio Division of Conservation and Natural Resources. Provision was made for a year-round operation. Dr. D. M. DeLong served as Director and Dr. T. H. Langlois served as Assistant Director. In addition, conservation activities in the state were outlined in detail in the Committee report. At this meeting E. L. Wickliff read papers on "Ohio Fisheries Statistics" and "Progress Report of the American Fish Policy." Dr. Langlois read a paper on "Methods of Improving Fish in Lakes and Ponds in Ohio."

In his report as representatives on the Save Outdoor Ohio Council, Dr. Waller announced that the Ohio legislature recommended purchase of lands for establishment of state parks along the shores of Lake Erie. A committee was selected to make a study of suitable areas for these purchases. At this meeting the name of the Committee on State Parks and Conservation was abbreviated to the Committee on Conservation and operated under this title, with Dr. E. S. Thomas as Chairman, for a number of years. A digest of conservation activities in Ohio, the work of the committee, and recommendations for academy action were printed in each annual report.

At this meeting Dr. T. H. Langlois, of the Bureau of Fish Management, read a report on the "Ohio Fisheries Management Program," and R. R. Paton, of the Ohio Agricultural Experiment Station, reported on "The Forest Arboretum at the Experiment Station." In the Section of Geography a group of papers was presented on research carried out at the Muskingum Climatic Research Center.



FIGURE 3. Dr. Paul B. Sears.  
Photograph made in 1957.

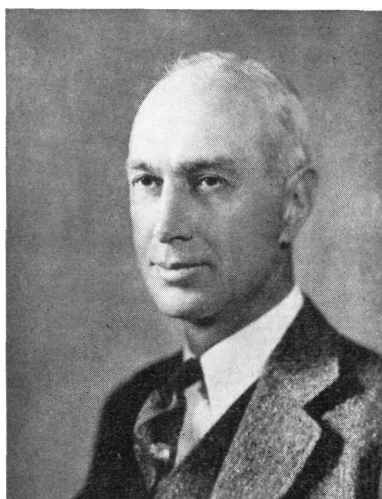


FIGURE 4. Dr. Edward S. Thomas.  
Photograph made about 1945.

In 1939 an invitational address on "Predictions of Floods on the Ohio River" was given by Edwin L. Moseley, and on "Science and the New Landscape" by Paul B. Sears. In the Zoology Section papers were given on "Land Use and Wildlife Purposes on a Northeastern Ohio Demonstration Game Management Area" by M. C. Gilfillan, and a special session was held on "Conservation and Fish Management." In the Geology Section G. W. Conrey spoke on "Soil Conservation in Ohio," while in the Geography Section, J. A. Slipper spoke on "March of Ohio Soil Resources," and G. D. Hubbard, with R. C. Rockwood, spoke on "Utilization and Change of Use of Abandoned Lake Beds in Ohio." In the Report of the Conservation Committee, Dr. Thomas announced the appointment of a Commissioner of Conservation in Ohio, who was appointed by the Natural Resources Commission. Also, the name of the Division of Fish and Game was changed to the Division of Conservation and Natural Resources. Among the recommendations of the academy Committee on Conservation was one recommending that the Division of Conservation and Natural Resources cooperate with the State Department of Education to foster a program for the teaching of conservation in public schools.

The 50th Meeting of the Academy was celebrated as a Golden Anniversary. One of the special programs was organized for a review of "Basic Factors in Conservation." G. W. Conrey, F. J. Wright, and E. N. Transeau spoke on the origins of Ohio soils, landscapes, and vegetation. In 1941 E. L. Wickliff spoke to the Zoology Section on "Value of Stocking Fish in Ohio During the Past 58 Years," while T. H. Langlois reported on "The Changing Trend of Abundance of the Fishes of Lake Erie of 1940." In the Botany Section O. D. Diller described the "Forestry Situation in Ohio," and P. B. Sears explained the "Relations Between Resources, Population, and Legislation in Ohio." From this time on, each annual meeting included an increasing number of reports of this type from state officials of conservation agencies and college professors concerned with teaching and research on problems of natural resources. In 1942 Dr. Langlois became Chairman of the Committee on Conservation, replacing Dr. A. E. Waller, who had served since 1940. In the report of the Executive Committee for 1942 it was mentioned that "reports from Waller and Franks brought out some important facts concerning the part played by the Academy in Ohio conservation. Due to changes arising from the shift of national interest, the Council felt very strongly that the Academy should assume responsibility for further long-range planning in this field as one of the greatest fields of public service open to it."

In 1942 Dr. Paul B. Sears published a succinct review entitled, "History of Conservation in Ohio." This account was later extended by his report on "Ohio's Conservation Record, 1908-1958" (Sears, 1942 and 1958).

At the meeting for 1943 a special symposium on Conservation was presented, with Dr. Langlois presiding. He became the new Chairman of the Committee on Conservation.

At the meeting of 1946 discussion was held by the Council on the suggestion of the National Academy Conference, supported by the American Association for the Advancement of Science, requesting greater cooperation of state academies in the practical work of conservation. A committee of three was appointed to investigate this matter.

In 1950 Dr. Sears delivered the presidential address which he entitled, "Conservation in Theory and Practice." At this meeting an informal subsection on conservation was sponsored by the Section of Plant Sciences, and a special symposium on conservation was directed by Dr. Charles A. Dambach. He served as chairman of the Committee on Conservation that year. A year later the informal subsection on conservation was continued, and another special symposium was held with Dr. James R. Beck, Chairman of the Committee on Conservation, in charge. The general theme was "Conservation Needs and Services in Butler, Warren, Hamilton, and Clermont Counties." This was followed up with a related field trip through this area the following day.

Success of the subsection meetings of the previous two years, plus the increasing interest in the formation of a special section for conservation, resulted in the creation of a Section of Conservation at the meeting for 1952 held at Kent State University. In this first meeting a symposium was held on "Conservation Needs and Services in District No. 3" (Northeastern District of the Department of Natural Resources), and a panel discussion was held on "Conservation Education in Ohio." Following the annual business meeting of the Academy there was a special showing of the film "Yours is the Land" produced by the Ohio Department of Natural Resources. The following day the Conservation Section, together with the Sections of Zoology and Plant Sciences, held a joint field trip. At noon-time a special luncheon was held for the group. With the creation of a section for conservation, the Committee on Conservation was dropped from the Academy since the new section assumed the responsibilities of the committee which had been active for so long.

In 1953 the Section of Conservation met jointly with the Ohio Wildlife Manage-

ment Association. Symposia were held on "Conservation Needs and Services in Central Ohio" and "The Development and Use of Outdoor Facilities for Conservation Education in Ohio."

Interest in native vegetation by members of The Ohio Academy of Science led to the formation of the Ohio Flora Committee (1950) which, with grants from the Academy and from the National Science Foundation, has organized a very successful program. Already a volume has been published on *The Woody Plants of Ohio* (1961) prepared by E. Lucy Braun, and other units are now in preparation. Some members of the Academy have also been affiliated with the Ohio Chapter of the Nature Conservancy as well as showing continued interest in the Ohio Biological Survey. One division of this, the Habitats Inventory of Ohio, under the leadership of Dr. J. Arthur Herrick, has been especially productive.

The Section of Conservation has become a very active one, and attendance at its meetings has been very gratifying, indicating the need for such a section and the wisdom of the Academy in creating it. Symposia and panel discussions have been held regularly in addition to the reporting of the individual studies on conservation and conservation education. In 1954 an annual series of reports and interviews was instituted bringing to the section participants in the Junior Academy program who had received awards for projects in conservation. At many of the annual meetings, field trips have been conducted in the area of the meeting, with special reference to the conservation problems and activities of that area. At the meeting for 1956 Dr. Dambach explained the nature and projected work of the newly organized "Natural Resources Institute" for which he had been appointed Director.

While The Ohio Academy of Science has not been the only organized group working to promote conservation measures in the state, it has been one of the significant forces to bring about such steps. Three contributions have been outstanding over the past 70 years. Its officers and committees have brought to the attention of state officials the need for a scientific program of conservation, the Academy has often acted as an advisory body to branches of the state government concerned with natural resources, and by its reports and programs it has made the membership of the Academy "conservation conscious." Many, although not all, of the outstanding leaders who have planned and carried out the conservation programs in Ohio have been associated with the Academy.

While the Section of Conservation is one of the youngest in age, it has already played a very prominent part in the life of the Academy and promises to continue in this role in the years ahead. From the very beginning the Academy has had a deep interest in matters concerned with conservation of natural resources and conservation education in Ohio. I have already outlined the historical development of conservation education (Dexter, 1961). Activities in these fields have been among the greatest contributions the Academy has made to the welfare of the state of Ohio.

Acknowledgment is made to the following officers of The Ohio Academy of Science for a critical reading of this paper while in manuscript form: Dr. Guy-Harold Smith, president; Dr. George W. Burns, secretary; and Mr. John H. Melvin, executive secretary.

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